Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Proposed Reallocation of 420	)	
To 430 MHz and 440 to 450 MHz	)	RM 9267
From the Federal Government to	)	
The Private Mobile Radio Service	)	

TO: The Commission

FROM: Brian D. Justin, Jr.
PO Box 10293
Lynchburg, VA 24506-0293

Formal comments urging
Denial of the Land Mobile Communications Council's
Request for Reallocation RM-9267

May 28th, 1998

I am writing the following comments to the Federal Communications Commission urging the **denial** of the Land Mobile Communications Council's (LMCC) request for the reallocation of 420-430 and 440-450 MHz bands from the Federal Government use to Private Mobile Radio Services (PMRS) use. I make these comments after reviewing the LMCC's proposal and understanding the impact that would be imposed on the Amateur Radio Service should such a reallocation occur.

I have been an Amateur Radio operator for more than 20 years and have made extensive use of the complete 420-450 MHz, primary and secondary allocation(s) to the Amateur Radio Service. I currently own and operate 6 radio repeaters that would be displaced should a reallocation of this band occur. These repeaters are located in the states of Vermont and Virginia and have been used, by other amateurs like myself, for providing public service communications and supporting emergency communications to the general public. I also have made a large private financial investment in radio equipment for use of this band and would find myself rather "put out" should this equipment become useless to me in my pursuit of Amateur Radio as a hobby.

However I find myself more compelled to comment on several specific, as well as technical issues, that have been raised by the LMCC itself in its own petition for rule making (RM). I make these comments on my own behalf as an Amateur Radio operator, and as a Radio Frequency design engineer employed in the land mobile radio industry.

First, in item number 24 of the LMCC's petition they state that the UHF, Private Mobile Radio Service band is the "backbone" of the industry. This may be true as far as conventional wide band (25khz) repeaters and simplex operations are considered. However, as has been demonstrated in the 800/900 MHz bands, trunking can provide a much more efficient use of a given amount of radio spectrum. Until recently, trunking

has only been common place on the 800/900 MHz bands due to the accommodations made in CFR 47, Part 90. Of late, rule changes to CFR 47, Part 90 now make it possible for PMRS licensees to utilize trunking in the UHF band. This change, along with the current re-farming of the UHF band plan will provide greater spectral efficiency then ever was possible before. However, the LMCC has yet to demonstrate, with practical examples, of why this latest approach to spectrum utilization will not meet the current and future demands of the PMRS industry. Current land mobile radio manufacturers offer trunked UHF radio systems for sale, but few are actually in operation. This point has not been fully addressed by the LMCC and it is imperative that this issue be examined. The LMCC and PMRS industry as a whole, must demonstrate complete and efficient use of existing radio spectrum before arbitrary 'spectrum grabs' can be justified. The Commercial Mobile Radio Service (CMRS) has made very efficient use of their allocated spectrum by employing such modern technologies as Time Division Multiple Access (TDMA) and Code Division Multiple Access (CDMA). These two methods of spectrum utilization have provided, at a minimum, a three-fold increase in system capacity. Similar technological solutions should be applied to the PMRS bands that are already in place for their often exclusive PMRS use.

Secondly, in item number 26, the LMCC claims that the existing VHF PMRS band is not suitable for further use because "mobile duplex capability is generally impractical". The former Improved Mobile Telephone Service (IMTS) has fully demonstrated that mobile duplex use of the band is completely practical. Although the VHF band has no "inherent frequency paired structure" as the LMCC claims, perhaps it would take a simple initiative by an organization like the LMCC to establish such a structure and thereby make better use of an existing PMRS band with out the need to reallocate further spectrum.

Thirdly, item number 55 of the LMCC petition addresses their desire for "Immediacy/Priority Access" to radio spectrum in the act of supplying critical communications "during disasters and emergencies when public telecommunications circuits are often severed or jammed with calls." I wish to point out that it is the public service nature of the Amateur Radio Service to provide such communication channels in just such situations. Therefore, there is no need to reallocate the aforementioned spectrum since it is already being utilized in just such a capacity. The LMCC further proposes that the reallocation be made in paired structure, yet this is the current status quo of the 440-450 MHz Amateur allocation. No higher efficiency band plan than what is currently in use by Amateurs has been detailed.

It would be unwise for the Commission to 'undo' what has been started in other telecommunications sub bands such as the Digital Audio Radio Service (DARS) and the High Definition Television (DTV) service and that is, a greater effective use of limited radio spectrum through the application of digital technology. In their petition the LMCC does not state any plans to follow in the foot steps of other technology leaders other than to arbitrarily state in item number 73, that "services implemented here, equipment availability and technology would benefit amateurs pursuing such applications as compressed video television in the 430-440 MHz band." (sic) This in no way has been previously demonstrated by the PMRS industry with the possible limited exception of equipment availability. The PMRS industry must first demonstrate this alleged "technology" in their currently assigned spectrum before additional spectrum is allocated.

Item 73 further states that Amateur use of the 420-430/440-450 MHz band remain secondary to PMRS users. This would imply that sharing of the spectrum be the norm for this band in the future. However, no where does the LMCC state how such sharing would take place and even if such a proposal would be at all practical. This fact, like the

one stated previously, should first be demonstrated in existing PMRS allocations before accommodations are made.

Additionally, item 78 makes the recommendation that a portion of the 1300/1400 MHz band be made available to the Amateur Service to offset the constriction in what would be the remaining 430-440MHz amateur band. It is in this statement that a serious flaw in the over all LMCC petition becomes evident. If the necessity for tactical communications is a priority for PMRS users as item 16 of their petition claims, and that this communication take place with in a geographically limited area, then the application of frequencies in the above 1GHz region would be better suited for this due, in fact, to the more limited range of such frequencies. The use of such higher frequencies would also allow for closer spacing between co-channel users of a given frequency. Thus, allowing for an even denser frequency re-use pattern in a given geographic area. Yet, it is with surprise that the LMCC is willing open to advocate the reallocation of such above 1GHz frequencies to the Amateur Service when these frequencies would better serve their own stated needs.

In conclusion, I again request that the Commission deny the LMCC's request and not advance their petition into a Noticed of Proposed Rule Making (NPRM). Should the LMCC revise their petition at some future date, it would be worthy of a second review but **only** if these above mentioned issues are fully addressed and plausible answers are given with factual data to support broad findings rather than a limited number of isolated incidents as is the case with their current proposal.

Respectfully submitted,

Brian D. Justin, Jr.